

Amendments to the Drawings:

The attached drawing sheet includes changes to Figure 3B. In particular, Figure 3B is amended to show the circuit arrangement that is described in paragraphs 23 and 24 of the specification.

REMARKS/ARGUMENTS

In the Office Action mailed May 2, 2007, claims 1-20 were rejected. Additionally, claims 4-7 and 9 were objected to. Figure 3B was also objected to. In response, Applicant hereby requests reconsideration of the application in view of the amended claims, the amended drawing, and the below-provided remarks. No claims are added or canceled.

For reference, claims 1 and 3-20 are amended. In particular, various amendments are presented throughout the claims to clarify the language of the claims, to overcome objections, and to improve the presentation of the claims. Applicant respectfully submits that the presented amendments are supported by the originally filed specification.

Response to Drawing Objections

The Office Action objected to Figure 3B for failing to show the configuration described in paragraph 23 of the specification. Applicant appreciates the Examiner's attention to the specification and drawings. Applicant respectfully submits a replacement drawing sheet to show amended Figure 3B, as described in the specification. Accordingly, Applicant respectfully requests that the objection to the drawings be withdrawn.

Response to Claim Rejections under 35 U.S.C. 101

Claims 1-20 were rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. In particular, the Office Action states that the claims purportedly do not produce a useful, concrete, and tangible result because they are directed to a circuit arranged in a manner to produce a random signal as an output.

Applicant respectfully submits that these claims are directed to statutory subject matter, despite the Office Action's assertion, because these claims recite a random number generator and a random number generation method, which places them squarely within the categories defined by 35 U.S.C. 101 (i.e., processes, machines, manufactures, and compositions of matter). In particular, the preamble of claim 1 recites "a random

number generator” (i.e., a machine), and the preamble of claim 11 recites “a method for random number generation” (i.e., a process).

The MPEP states that the tangible requirement requires that the claim must recite more than a 35 U.S.C. 101 judicial exception (i.e., abstract idea, mathematical algorithm, natural phenomenon, or law of nature). MPEP 2106(IV)(C)(2)(2)(b). Where a claim includes a reference to subject matter included in the judicial exceptions, the process claim must set forth a practical application of that judicial exception to produce a real-world result. The MPEP also states that the tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. Here, the limitations of claims 1 and 11 are tied to structural components of a machine or apparatus. In particular, claim 1 includes structural limitations, including flip-flops, connection configurations, an XOR network, outputs, and a latch. Similarly, the limitations of claim 11 are tied to flip-flops, connection configurations, outputs, an XOR network, and a latch. Thus, the limitations of claims 1 and 11 directly recite and/or relate to structural limitations, which limitations remove these claims from consideration as a judicial exception to patentable subject matter. Claims 2-10 and 12-20 depend from and incorporate all of the structural limitations and references of the corresponding independent claims 1 and 11, respectively.

Additionally, the random number generator of claim 1 and the method of random number generation of claim 11 have a practical application of generating a random number. Applicant respectfully submits that there are many known uses for random number generation in computer devices and computing technology, including for example computer simulation and data encryption. The fact that the claims do not restrict the generator and method to a particular field of use does not negate the availability of practical applications for the random number generator and the method of random number generation. Given the breadth of practical applications for random number generation in computing technology, as well as other fields of art, claims 1-20 recite patentable subject matter because they have practical applications related to random number generation.

Therefore, the limitations of the claims are tied to structural components and, additionally, are directed to a practical application of generating a random number for use in, for example, computer devices and computing technology. Thus claims 1-20 satisfy the requirements with respect to determining whether a claimed invention complies with 35 U.S.C. 101. Accordingly, Applicant request that the rejections of claim 1-20 under 35 U.S.C. 101 be withdrawn.

Response to Claim Rejections under 35 U.S.C. 103

Claims 1, 2, 7-12, and 17-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita et al. (U.S. Pat. Pub. No. 2003/0061250, hereinafter Fujita) in view of Schulz (U.S. Pat. No. 4,905,176, hereinafter Schulz). However, Applicant respectfully submits that these claims are patentable over Fujita and Schulz for the reasons provided below.

Independent Claim 1

Claim 1 recites “a plurality of groups of independent flip-flops, at least some of the groups having different connection configurations” (emphasis added).

In contrast, Fujita does not teach a plurality of groups of independent flip-flops having different connection configurations. Fujita merely describes multiple unsettable flip-flops (UFFs) connected to an XOR gate. Fujita, Fig. 18A. Each of the UFFs has the same configuration using two logic gates cross-connected in an identical manner and connected to a single input line. Fujita, Fig. 18B. Thus, all of the UFFs have the same connection configuration between the corresponding logic gates. Furthermore, the use of different input signals does not render the connection configurations of the UFFs different by simply using different input voltages. Regardless of the voltage signal on the input line to each UFF, the manner in which the logic gates of the UFFs are cross-connected remains identical. Therefore, Fujita does not teach all of the limitations of the claim because Fujita does not teach different connection configurations for the UFFs. Accordingly, Applicant respectfully submits claim 1 is patentable over the combination of Fujita and Schulz because Fujita does not teach all of the limitations of the claim.

Independent Claim 11

Applicant respectfully asserts independent claim 11 is also patentable over the combination of Fujita and Shulz at least for similar reasons to those stated above in regard to the rejection of independent claim 1. In particular, claim 11 recites “providing a plurality of groups of independent flip-flops, at least some of the groups having different connection configurations” (emphasis added).

Here, although the language of claim 11 differs from the language of claim 1 and the scope of claim 11 should be interpreted independently of claim 1, Applicant respectfully asserts that the remarks provided above in regard to the rejection of claim 1 also apply to the rejection of claim 11. Accordingly, Applicant respectfully asserts claim 11 is patentable over the combination of Fujita and Shulz because Fujita does not teach UFFs with different connection configurations.

Dependent Claims 2-10 and 12-20

Claims 2-10 and 12-20 depend from and incorporate all of the limitations of the corresponding independent claims 1 and 11, respectively. Applicant respectfully asserts claims 2-10 and 12-20 are allowable based on allowable base claims. Additionally, each of claims 2-10 and 12-20 may be allowable for further reasons. Furthermore, the Office Action recognizes that claims 3-6 and 13-16 recite allowable subject matter and would be allowable upon overcoming the rejections under 35 U.S.C. 101.

CONCLUSION

Applicant respectfully requests reconsideration of the claims in view of the amendments and remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-3444** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-3444** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

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